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NEW RECORDS AND NAME CHANGES OF NORTH AMERICAN LYGAEIDAE (HEMIPTERA: HETEROPTERA: LYGAEIDAE)[1]

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Abstract.—*Lygaeus trux* Stål is removed from the list of U.S. Lygaeidae; *Nysius niger* Baker is shown to be the correct name for *N. ericae*, Amer. auct., not Schilling; *Nysius scutellatus* Dallas and *Lamprodema maura* (Fabricius) are newly recorded from North America north of Mexico; *Neosuris castanea fraterna* Barber is synonymized with *Neosuris castanea* (Barber); new state records are recorded for *Ochrimnus lineoloides* (Slater), *Bathydema punctata* (Distant), *Megalonotus sabulicola* (Thomson), *Neosuris castanea* (Barber), *Carpilis barberi* (Blatchley), and *Zeropamera nigra* Barber.

The following new records and synonymies of and deletions from the U.S. lygaeid fauna are presented now so that they may be included in a forthcoming catalogue of the Heteroptera of America north of Mexico.

Lygaeus trux Stål

Lygaeus trux was reported for the first time as a member of the U.S. fauna by Torre-Bueno (1946:13) in part III of his "Synopsis of the Hemiptera-Heteroptera of America north of Mexico." He listed the species from Arizona and Mexico with no further data. In the Torre-Bueno collection, which is now in the Snow Entomological Museum, University of Kansas, there is a male specimen labeled by Torre-Bueno as *Lygaeus* (*Lygaeus*) *trux* Stål with an additional note: "specimen in synopsis key." The locality label reads "Baboquivari Mt., 18-XI-34, Ariz.," a locality in Pima County about 50 miles southwest of Tucson. The specimen is not *L. trux* at all; it appears to be a slightly teneral specimen of *L. reclivatus* Say. *Lygaeus trux* is characterized by a Y-shaped red fascia on the head with arms that reach the antenniferous tubercle, and by a dull orange corium with a black spot in the middle, independent of the lateral black area. *Lygaeus reclivatus* has a quadrate spot on the base of the head, and the central spot on the corium is included in or contiguous with the lateral black area. Both species have the clavus predominantly red with a black spot behind the middle. Torre-Bueno's specimen has a very slightly bifurcate red quadrate spot on the base of the head, and the corial spot is contiguous with the lateral black area. The corium is a bright red more characteristic of *reclivatus* than of the dull orange *trux*. That Torre-Bueno's specimen is teneral is indicated by its very dark red appendages; black ones are char-

acteristic of adults of both species. Thus it would appear that *Lygaeus trux* should be removed from the list of U.S. species.

Ochrimnus lineoloides (Slater)

This species is listed in Slater's (1964) catalogue from Virginia to Florida as well as Texas, New Mexico, and Guadeloupe Island. To these localities must be added New Jersey: Cape May, Cape May Co., New Jersey, 21-VIII-69, P. D. Ashlock, coll.

Nysius niger Baker

In 1908, Horváth listed as Holarctic the widespread European species *Nysius ericae* (Schilling). Ever since, this North American insect, also known as the "false chinch bug," has gone under the name *ericae*. I have compared European specimens (identified with the aid of Wagner, 1958) and North American specimens (keyed in Barber, 1947), and find that the two forms are not identical. Moreover, I can find no evidence that the European *N. ericae* is found in the Western Hemisphere. Hence, another name must be found for the North American species.

Barber (1947) in his treatment of the genus *Nysius* of the United States and Canada, on the advice of the late R. L. Usinger who studied Baker's types, synonymized *Nysius angustatus* var. *niger* Baker with *Nysius ericae* (Schilling). Baker's variety is the only available name for the North American species, which now must be called *Nysius niger* Baker. Barber selected a female lectotype from Baker's cotype series labelled "Wash. No. 2508."

Barber (1947) lists the species (as *N. ericae*) as occurring in the "entire Dominion of Canada from New Brunswick to British Columbia and in the United States from Maine to Washington, Oregon and northern California." He also mentions that the range overlaps that of *N. raphanus* Howard in Kansas. I have identified the species from Point Barrow, Alaska, Sonora Pass, California, and northern Arizona and New Mexico in the west. In the east, the species has been collected also in New Hampshire, Connecticut, and New York.

Although *N. ericae* and *N. niger* are very similar, a trained eye can distinguish the two when they are placed side by side. The best evidence for the two being distinct can be found in the female spermatheca (Fig. 1). In *N. ericae* the duct just basal to the terminal bulb is in a tight coil for about three and a half turns, and the enlarged basal part of the coil is longer and thicker. In *N. niger* this coil is more open, irregular, and makes about one and a half turns; the basal enlarged portion of the coil is much shorter and narrower. The spermatheca in species of *Nysius* is a pigmented structure that holds its shape when studied under glycerine. In

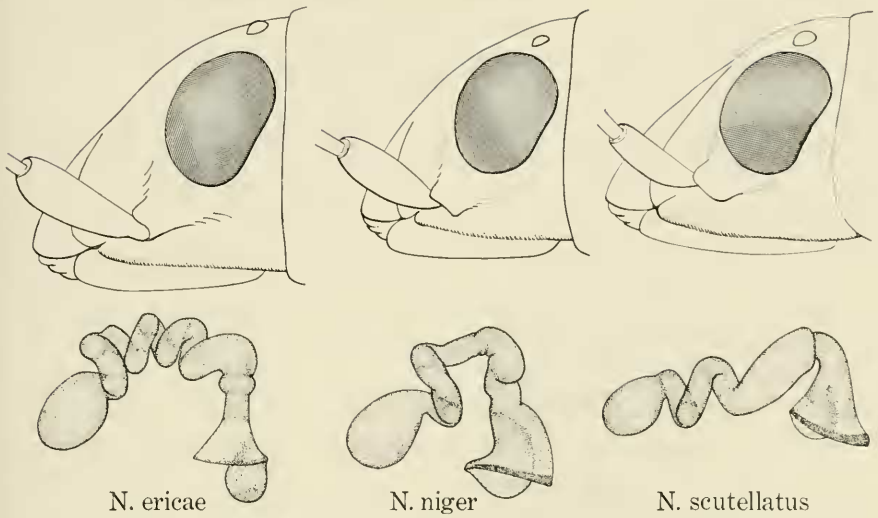

Fig. 1. Lateral view of head (upper) and spermatheca (lower) of named species of *Nysius*.

investigating several specimens of each species, I have found some variation, but none that would result in confusion of the two species. Investigations of the spermatheca of many species of *Nysius* from all over the world demonstrate that each species has a distinctively shaped spermatheca. The inflated aedeagus also demonstrates the distinctness of the two species, the differences being found in the lobes of the vesica.

The common name "false chinch bug" was first used by Bruner and Barber (1894) for insects sent in to be infected with "chinch bug disease" which turned out not to be chinch bugs. The common name was said to be specifically applied to *Nysius angustatus* Uhler, but because of the short pronotum the figure (credited to Riley) is clearly the species known as *Nysius raphanus* Howard. Milliken (1918) in discussing the false chinch bug under the name *Nysius ericae* as an agricultural pest gave an original figure which is also *N. raphanus*. *Nysius raphanus* is the most serious pest among North American species of *Nysius*, and if any species deserves a common name, it is this one.

Nysius scutellatus Dallas

Nysius scutellatus was described by Dallas (1852) from Jamaica, and has since been reported from the Bahamas, Puerto Rico, and several other islands of the greater and lesser Antilles. Comparison of *N. scutellatus* with

specimens resembling *N. niger* from the southeastern states shows that *Nysius scutellatus* must be added to the U.S. list of species. I have found specimens in many localities in Virginia, North and South Carolina, Georgia, and Florida. *Nysius scutellatus* is very similar to *N. niger* but can be separated externally by its longer bucculae, which project downward much less than those of *N. niger* and are less tapered. To see the difference, it may be necessary to remove some of the hairs that obscure the area where the bucculae attach to the head. The spermatheca (Fig. 1) again demonstrates the differences between the two species most clearly. In *N. scutellatus* there are, as in *N. niger*, about one and a half coils in the duct, but these are tight and regular, and the basal enlarged part of the coil is larger than that of either *N. niger* or *N. ericae*.

Plinthisus martini Van Duzee

Torre-Bueno (1944) synonymized this species with *Plinthisus longisetosus* Barber, stating "*On the face of the descriptions*, the two species are one and the same." Torre-Bueno did not see the type-specimens of these species, and Van Duzee's description (1921) made no comparison with Barber's 1918 description. I have seen the types of both, and they are distinct from one another. It would be misleading to try to verbalize the distinctions between the two, however. These two species, along with *P. pallidus* Barber, are part of a difficult complex of species, all very similar and found in California and Oregon, that may amount to more than ten species, judging from the material at hand. None is more than 2 mm long, all are brachypterous and membraneless, and all have the coria truncate or nearly so posteriorly. Most of my material is from the San Francisco Bay area, but I have specimens from Curry County, Oregon, and Lake Tahoe, California, in the Sierra Nevada Mountains. Barber's *P. pallidus* was described from Los Angeles. I am resurrecting *P. martini* because it is better to include all valid described species in the forthcoming catalogue, but the genus needs extensive collecting and careful revision before characterizations will be of any value.

Bathydema punctata (Distant)

Distant (1893) described this species as *Salacia* (?) *punctata* from Panama. To date, the only other record has been that of Banks (1910), who listed *Cligenes punctata* (Distant) from "Tex." Many of the records from the Banks catalogue are erroneous, and I know of no extant voucher specimen for his record. It was of great interest to receive from Mr. C. L. Smith of the University of Georgia a single male specimen with the following data: Ga., Baker Co., pond off Rte. 37, 2.4 mi W Newton, 11-IV-75, C. L. Smith, coll. This species was placed in *Antillocoris* by Van Duzee

(1916) where it is listed in Slater's 1964 catalogue. Ashlock (1964) placed it in *Bathydema.*

Megalonotus sabulicola (Thomson)

This widely distributed European species was first reported in North America by Van Duzee (1928) under the name *Rhyparochromus chiragra* var. *californicus* Van Duzee, from specimens collected in 1921 in Albany, California, and other localities near San Francisco. Slater and Sweet (1958) reported the species from several localities in Connecticut, first collected in 1957. Because it has also been intercepted at quarantine in Washington, D.C., and Philadelphia, Pa., and a comparison with specimens from western North America yielded no essential differences, Van Duzee's variety was synonymized. Scudder (1961) and Sweet (1964—with a grammatical correction by Steyskal, 1973)—have established that *Megalonotus sabulicola* (Thomson) is the correct name for the species found in North America.

Scudder (1961) reported the species from British Columbia (earliest record, Duncon, 1-X-32), and with no other data from Seattle, Washington. During the 1950's I also was attempting to establish the synonymy of Van Duzee's variety; as a part of this study, I gathered all the available records to establish the spread of the species from California. Even though this procedure is suspect because it depends on the fortunes and spread of collectors, it is about the only one to suit the purpose. The data thus collected is instructive and includes three new state records. The most significant records are: Oregon: Portland, Corvallis, Dever, Scio, all 1931; Washington: Seattle, 1933; California: La Jolla, Escondido, 1941; Idaho: Lenore, 1948, Cassia, 1954; Utah: Logan Canyon, 1957. The distribution of the species is now from southern California north to British Columbia, east through northern Idaho and southern Idaho to northern Utah, with a disjunct distribution in Connecticut. The Oregon, Idaho, and Utah records have not previously been published.

Lamprodema maura (Fabricius)

This species is known from many localities in Europe, but seems to have become established in southern California, as the following two records indicate: California, Orange Co., S. Huntington Beach, 22-XII-65, ex. ear of corn, John Cloot & Duane Cork, colls.; California, Los Angeles Co., Long Beach, 22-III-60, J. K. Drew, coll. An additional specimen was found in the Snow Entomological Museum with the data: Truro, N.S. [Nova Scotia?], 5-IX-13. The fact that the two North American localities for this common European species are so far apart and coastal probably indicates that the species has been introduced into North America twice.

Neosuris castanea (Barber)

Esuris castanea Barber, 1911, J. New York Entomol. Soc. 19(1):27–28.
Neosuris castanea (Barber), 1924, J. New York Entomol. Soc. 32(3):133–134.
Neosuris castanea fraterna (Barber), 1948b, Psyche. 55(2):86. New synonymy.

Barber cited as characters for the subspecies some differences in punctation, and the fact that, although variable, the specimens of the subspecies tended to be darker than those of the nominate form. I have studied the holotype and paratypes of *castanea*, paratypes of *fraterna*, and a series from Utah that Barber identified as *fraterna*, and find that the within-population variation covers the full range of both forms. There seems no taxonomic way to delimit geographic subdivisions of the species. A second series from Alameda County, California, further demonstrates this inherent variability: individuals vary from a middle castaneous to nearly black, but always retain the white apical margin of the corium. The species has been recorded from Arizona, Colorado, and Idaho, so the Utah and California records are new. The pertinent records are: Utah: Tooele Co., Tooele Ordinance Depot, 16-V-53, 20-VI-53, 22-VIII-53, 19-IX-54, under grass, P. D. Ashlock, coll.; California: Alameda Co., 20-VIII-54, under grass and low herbs, P. D. Ashlock, coll.; San Diego Co., Descanso Jct., 31-III-61, E. E. Lindquist, coll.

Carpilis barberi (Blatchley)

Blatchley (1926) described this species from two localities in Florida as *Ptochiomera barberi*. I collected a single female in plant litter near the beach in North Carolina, Brunswick Co., Ocean Isle Beach, 9-VII-60.

Zeropamera nigra Barber

This species was described by Barber (1948a) from a type male from California, Mt. Wilson, Los Angeles Co., and two paratype females from Sequoia National Park, California. No further records have been published. A single specimen, seen by both myself and Mr. H. G. Barber, but since lost, constitutes a new state record: Utah: Tooele Co., Dugway Proving Ground, Granite Mt., ex nest of *Neotoma*, 20-IV-53, A. Gastfriend, coll. Whether the pack rat nest is the preferred habitat of *Zeropamera nigra* is not known. I have seen many specimens of Lygaeidae collected from *Neotoma* nests in southern California and Mexico by R. E. Ryckman, and *Zeropamera* was not among them. One additional male specimen of *Z. nigra* is in my collection, kindness of the collector: California, San Bernardino Co., Camp Baldy, 28-VI-62, G. L. Wiley, coll.

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Footnote

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NOTE

LUTZOMYIA VEXATOR (COQUILLETT) IN CONNECTICUT (DIPTERA: PSYCHODIDAE)

During the summer of 1976, New Jersey and CDC light traps (for biting flies) were operated at thirteen sites in south central Connecticut five nights weekly from 26 May to 30 September.

Included in the catch were five specimens of *Lutzomyia vexator* (Coquillett), a species (and genus) previously unknown from the New England area. The collections were as follows: Millington, East Haddam (M. L. Green property, Smith Road), 15 July (1♂): ibid., 16 July (1♂, 1♀); ibid., 21 July (1♂). North Madison (D. D. Wilson property, Summer Hill Road), 28 July (1♀). The Wilson site is approximately 18 miles SW of Green's. Both areas are heavily wooded (oak-maple) with fresh-water swamps nearby.

Heretofore *L. vexator* has not been seen north of the type-locality, Plummer's Island, Maryland, except for one female taken at dusk 21 July 1971 by Downes (1972, Can. Entomol. 104:1135–1136) at Black Lake near Perth, Ontario, in the Rideau Lake region. The latitude of the Canadian locality is approximately 285 mi north of the Connecticut collection sites. Specimens have been deposited in the insect collections of the U.S. National Museum, Yale University and University of Florida.

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